

### CTE Pre-Event Services

- Consultation on emergency response plans for chemical events
- Consultation, participation, and evaluation during emergency preparedness exercises
- Chemical event and chemical terrorism education tailored to public health and emergency responders
- Consultation on worker safety issues
- Pre-event syndromic surveillance
- Networking with local, state, and federal response partners
- Resource center for scientific information

### CTE Post-Event Services

- Epidemiologic surveillance of injured and exposed individuals
- Assistance in addressing non-patient decontamination issues – “How Clean is Clean?”
- Reoccupancy guidelines for contaminated residential and commercial buildings
- Technical consulting on long-term health effects from short-term exposures
- Long-term health monitoring of exposed individuals
- Fact Sheet development
- Consultation on worker safety issues during emergency response and remediation

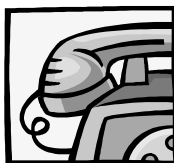
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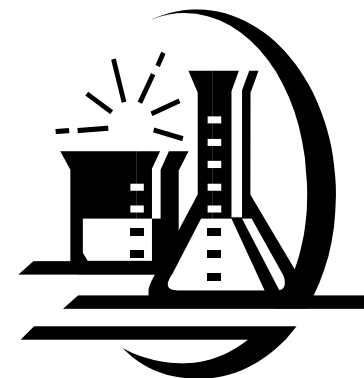


**In the event of a chemical emergency or terrorist incident, contact your local 911 and the MDCH Office of Public Health Preparedness immediately!**

**Business Hours: (517) 335-8150**  
**After Hours: (517) 335-9030**

## CHEMICAL TERRORISM & EMERGENCIES

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Michigan Department  
of Community Health



**Division of Environmental &  
Occupational Epidemiology**

**Chemical Terrorism &  
Emergencies Unit**

**1-800-MI-TOXIC**

## **Chemical Terrorism and Chemical Emergencies**

Chemicals play important roles in our everyday lives and are often key components of the products we use. Many of the properties that make chemicals valuable to us, such as their ability to kill dangerous organisms in water and pests on crops, can also make them hazardous to our health.

### **What are Chemical Emergencies?**

Chemical emergencies are accidental releases that may be as simple as spilling a household chemical, causing minimal damage, or as complex as an industrial chemical incident, causing significant damage to human health and to the environment. One of the worst accidental chemical releases happened twenty years ago when a plume of methyl isocyanate was released from a plant in Bhopal, India and caused tens of thousands of deaths and injuries in the surrounding community.

### **What is Chemical Terrorism?**

Chemical terrorism is the intentional use of chemicals or biologically derived toxins as weapons to cause significant damage to human health and to the environment. In one occurrence, a religious cult released the nerve agent, sarin, into the Tokyo subway system in 1995 causing major panic and social disruption, despite relatively few deaths and injuries.

### **What are the signs of a Chemical Release?**

**Chemical releases usually have immediately observable effects.**

#### **In humans, signs of chemical exposure could include:**

- Unusual numbers of sick people exhibiting symptoms including disorientation, blisters, rashes, nausea, shortness of breath and burning eyes
- Unusual numbers of deaths
- Patterns of victims who would likely be downwind of the release or affected indoors by air ventilation systems

#### **In the environment, signs of chemical exposure could include:**

- Dead animals, birds, fish and insects
- Dead foliage
- Unexplained odors
- Unusual liquid droplets
- Colored residue
- Unusual metal debris or containers

**Some chemicals may cause delayed effects allowing for considerable damage before detection.**

### **What does the Michigan Department of Community Health Chemical Terrorism and Emergencies Unit do?**

Preparing for and responding to dangerous chemical releases, both accidental and intentional, are important functions of public health. The Michigan Department of Community Health Chemical Terrorism and Emergencies, CTE, Unit assists local health departments and other emergency response agencies plan for and respond to chemical events. The CTE Unit provides expert technical consulting in the areas of:

- Exposure and Risk Assessment
- Toxicology and Environmental Chemistry
- Epidemiology and Surveillance
- Education and Outreach

